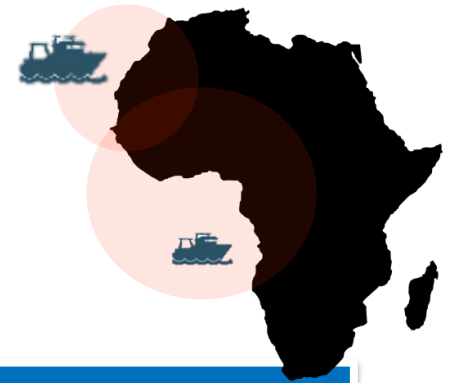




Co-funded by the European Maritime and  
Fisheries Fund of the European Union



# Overview of the state of demersal stocks of EU interest in the CECAF region

EASME/EMFF/2016/008 Specific Contract No. 17

**2020-21 Coordination Meetings Between DG MARE and EU  
Scientists involved in RFMOs and SFPAs**

**Lourdes Fernández-Peralta and Javier Rey Sanz**  
CECAF-SFPA/MARE coordination meeting.  
Virtual Meeting 19-20 October 2020

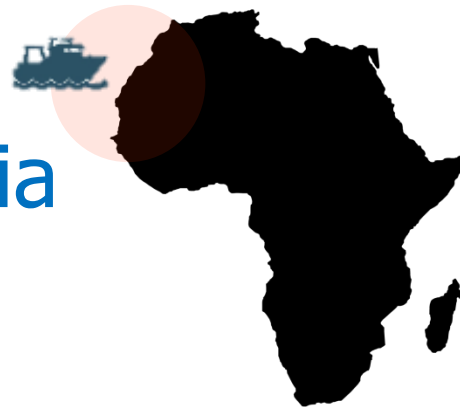


# Working Groups on the Assessment of Demersal Resources in CECAF area – Framework FAO

## Subgroup North

SFPAS

Morocco  
Mauritania  
Senegal  
Gambia



## Subgroup South

From  
Guinea-  
Bissau to  
Angola

SFPA



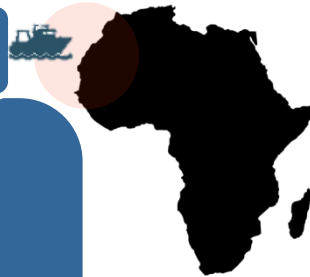
Information provide from European fleets through the Data  
Collection Framework (DCF) (EMFF)





# Working Groups on the Assessment of Demersal Resources in CECAF area – Framework FAO

## Subgroup North



FAO. In press. *Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup North*. Nouakchott, Mauritania, 2–10 **December 2019**. CECAF/ECAF series no. XX/XX. Rome.

27 stocks assessed  
**17** stocks into SFPAs

- 6 Overexploited
- 5 Fully exploited
- 3 Non fully exploited
- 3 No assessment or fit

✓ Diversity ↓  
✓ Interest EU ↑  
✓ Data poor  
✓ Best model fits

## Subgroup South



FAO. 2019. *Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources – Subgroup South*. Libreville, Gabon, 6–15 **September 2017**. CECAF/ECAF series no.18/79, 570 pp. Rome. Licence: CC BY-NC-SA 3.0 IGO.

53 stocks assessed  
**5** stocks into SFPAs

- 2 Fully exploited
- 1 Non fully exploited
- 2 No assessment or fit

✓ Diversity ↑  
✓ Interest EU ↓  
✓ Data poor ↑↑  
✓ Worst model fits



# Working Groups

## on the Assessment of Demersal Resources in CECAF area

### MAIN METHODS:

- Schaefer's dynamic production model (Biodyn; Barros, 2007)
- LCA analytical model

➤ Overexploited: 

➤ Fully exploited: 







➤ Non fully exploited: 

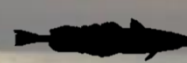
➤ Recommendations: A reduction in fishing mortality implies either a reduction in effort or the introduction of measures such as closed fishing seasons

**FAO criteria**



## FAO. In press. WG Subgroup North December 2019

	Stock	Catch (t) 2018 (aver. 2014-18)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	LCA/Yield per recruit ( $F_{cur}/F_{0.1}$ )	Stock status	Recomendations
BLACK HAKES	<i>Merluccius</i> spp: <i>M. polli</i> + <i>M. senegalensis</i> (2000-2018) From Morocco to Senegal	21 854 (18 064)	107%	157%	345% In large sizes		<ul style="list-style-type: none"> <li>• <b>Fishing effort:</b> ↓15%</li> <li>• <b>Catches:</b> decrease to MSY</li> <li>• Reduce <u>catches as accessory</u> (2014-2018: 5100t), mainly by small pelagic large ships</li> </ul>
SHRIMPS	<i>Parapenaeus longirostris</i> (2009-2018) Mauritania (Morocco and Senegal no EU fleets) 	1 185 (721)	84%	32%	NA		<ul style="list-style-type: none"> <li>• It could be considered a <b>gradual increase in catches</b>, up to the catch level of 2011-2012</li> </ul>
	<i>Penaeus notialis</i> (2009-2018) Mauritania (Senegal/Gambia no EU fleets) 	251 (279)	92%	13%	—		<ul style="list-style-type: none"> <li>• It could be considered a <b>gradual increase in catches</b> (to indeterminate level, surely 2011-2012)</li> </ul>
	<i>Aristeus varidens</i> (1991-2018) Mauritania	501 (216)	118%	161%	—		<ul style="list-style-type: none"> <li>• <b>To reduce</b> the level of <b>catches</b> compared to 2018</li> </ul>





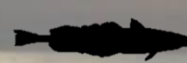
## FAO. In press. WG Subgroup North December 2019

	Stock	Catch (t) 2018 (aver. 2014-18)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	LCA/Yield per recruit ( $F_{cur}/F_{0.1}$ )	Stock status	Recommendations
DEMERSAL FISHES (Sparidae)	<i>Pagrus caeruleostictus</i> (Mauritania, Senegal)	12 602 (9 441)	94%	146%	—		• To <b>reduce catches</b> compared to last year (2018)
	<i>Dentex macrophthalmus</i> (Mauritania/ Senegal/Gambia)	5 184 (4 808)	94%	87%	—		• As a precaution, <b>not to increase</b> the <b>catch</b> level of 2018
	<i>Pagellus bellottii</i> (Mauritania/ Senegal/Gambia)	9 519 (8 527)	118%	90%	—		• <b>Not to increase</b> the <b>catch</b> level of 2018
	<i>Pagellus acarne</i> (Morocco)	1 737 (1 418)	65%	27%	127%		• <b>Not to increase</b> the <b>catch</b> level of 2018, to recover the stock biomass
	<i>Pagellus</i> spp. (Morocco)	1 335 (2 480)	—	—	—	No assess.	• <b>Not to increase</b> the <b>catch</b> level of 2018
	<i>Sparus</i> spp. + <i>Pagrus</i> spp. (Morocco)	4 542 (5 111)	—	—	—	No assess.	• <b>Not to increase</b> the <b>catch</b> level of 2018



## FAO. In press. WG Subgroup North December 2019

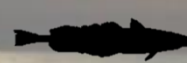
	Stock	Catch (t) 2018 (aver. 2014-18)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	LCA/Yield per recruit ( $F_{cur}/F_{0.1}$ )	Stock status	Recomendations
OTHER DEMERSAL FISHES	<i>Epinephelus aeneus</i> (Mauritania, Senegal, Gambia)	8 488 (6 173)	77%	224%	—		• <b>Gradual decrease</b> ranging from 30 to 50% of the <b>catch</b> compared to 2018
	<i>Plectorhinchus mediterraneus</i> (Mauritania, Morocco)	11 077 (10 606)	64%	167%	175%		• To <b>reduce catches</b> compared to the 2018 level



## FAO. In press. WG Subgroup North December 2019

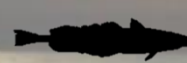
CEPHALOPODS	Stock	Catch (t) 2018 (aver. 2014-18)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	LCA/Yield per recruit ( $F_{cur}/F_{0.1}$ )	Stock status	Recomendations
	<i>Octopus vulgaris</i> Senegal/Gambia (Dakhla no EU fleets) 😞	4 919 (3 446)	99%	36%	—	😐	• As a precaution, <b>to maintain catches</b> at the same level of 2018
	<i>Sepia spp.</i> Cap Blanc	1 816 (1 979)	138%	35%	—	😊	• A <b>gradual increase in catches</b> can be envisaged
	Senegal/Gambia (Dakhla no EU fleets) 😞	4 308 (3 072)	98%	126%	—	😞	• A <b>reduction</b> of the level of catches
	<i>Loligo vulgaris</i> Cap Blanc	2 259 (2 659)	144%	41%	—	😊	• A <b>gradual increase in catches</b> can be envisaged
	Senegal/Gambia (Dakhla no EU fleets) 😞	214 (182)	NA	NA	—	No fit	• As a precaution, <b>to maintain catches</b> at the same level of 2018





## FAO. 2019. WG Subgroup South September 2017

	Stock	Catch (t) 2017 (aver. 2012-16)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	Stock status	Recommendations
SHRIMPS	<i>Parapenaeus longirostris</i> Guinea-Bissau	673 (807)	124%	51%		<ul style="list-style-type: none"> <li>• <b>Controlled increase in catch</b> adjusted to the level of last five years (800 t)</li> </ul>
	<i>Penaeus notialis</i> Guinea-Bissau	383 (502)	—	—		<ul style="list-style-type: none"> <li>• No results from assessment model, but considered fully exploited (other information)</li> <li>• The <b>catch should not exceed</b> the last five years mean catch (500 t)</li> </ul>
CEPHALOPODS	<i>Sepia</i> spp. Guinea-Bissau	2 929 (2 131)	126%	91%		<ul style="list-style-type: none"> <li>• <b>Fishing effort not exceed</b> the 2016 level (precaution)</li> <li>• The <b>catch not exceed average</b> of last 5 years (2000 t)</li> </ul>
	<i>Octopus vulgaris</i> Guinea-Bissau	2 520 (3 847)	—	—	No fit	<ul style="list-style-type: none"> <li>• Only partial information available for analysis</li> <li>• WG <b>unable to provide</b> any management <b>advice</b> based on the assessment</li> </ul>



## FAO. 2019. WG Subgroup South September 2017

	Stock	Catch (t) 2017 (aver. 2012-16)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	Stock status	Recommendations
DEMERSAL FISHES	<i>Dentex</i> spp. (2000-2016)? Guinea-Bissau, Guinea, Sierra Leone, Liberia	NA	—	—	No assess.	<ul style="list-style-type: none"> <li>• <b>No recommendation possible</b> (lack of data)</li> <li>• Countries should make arrangements for <b>complete data series</b></li> </ul>

\* Countries in red: no FSPA

Stocks from CECAF area exploited by European fleets without SFPAs

- Some stocks are being fished by Spanish vessels in some countries (i.e.: Guinea, Congo, Angola, etc.) ➡
- Lack comprehensive information of all the EU fleets operating in CECAF in this way



## Summary of stock status exploited by EU in the framework of SFPAs

STOCK STATUS	STOCK (TARGET BY THE EU)	SFPA (Category No.)	STOCK (BY-CATCH FOR THE EU)	SFPA (Category No.)
NON FULLY EXPLOITED	<i>Sepia</i> spp. – Cap Blanc	Mauritania (2bis)*	<i>Dentex macrophthalmus</i> – Mauritania, Senegal, Gambia	Mauritania (1, 2, 2bis)
	<i>Loligo vulgaris</i> – Cap Blanc	Mauritania (2bis)*		Senegal (1)
	<i>Parapenaeus longirostris</i> – Guinea Bissau	Guinea-Bissau (2)		
	Total= 3		Total= 1	
FULLY EXPLOITED	<i>Parapenaeus longirostris</i> – Mauritania	Mauritania (1)	<i>Pagellus bellottii</i> – Mauritania, Senegal, Gambia	Mauritania (1, 2), Senegal (1)
	<i>Penaeus notialis</i> – Mauritania	Mauritania (1)	<i>Octopus vulgaris</i> – Senegal, Gambia	Mauritania (1), Senegal (1)
	<i>Aristeus varidens</i> – Mauritania	Mauritania (1)		
	<i>Penaeus notialis</i> – Guinea Bissau	Guinea-Bissau (2)		
	<i>Sepia</i> spp. – Guinea Bissau	Guinea-Bissau (1)		
	Total= 5		Total= 2	
OVER EXPLOITED	Black hake ( <i>M. polli</i> and <i>M. senegalensis</i> )- Morocco, Mauritania, Senegal, Gambia)-Whole subregion N	Morocco (4) Mauritania (2, 2bis) Senegal (1)	<i>Pagrus caeruleostictus</i> – Mauritania, Senegal	Mauritania (2, 2bis) Senegal (1)
	<i>Pagellus acarne</i> – Morocco	Morocco (3)	<i>Sepia</i> spp. – Senegal, Gambia	Senegal (1)
	<i>Plectorhinchus mediterraneus</i> – Morocco	Morocco (3)	<i>Epinephelus aeneus</i> – Mauritania, Senegal, Gambia	Mauritania (1, 2, 2bis), Senegal (1)
	Total= 3		Total= 3	
UNKNOWN	<i>Pagellus</i> spp. – Morocco	Morocco (3)	<i>Loligo vulgaris</i> – Senegal, Gambia	Senegal (1)
	<i>Sparus</i> spp. + <i>Pagrus</i> spp. – Morocco	Morocco (3)	<i>Dentex</i> spp. – Guinea Bissau, Guinea, Sierra Leone, Liberia	Guinea-Bissau (1, 2)
	<i>Octopus vulgaris</i> – Guinea Bissau	Guinea-Bissau (1)		
	Total = 3		Total = 2	
	Total = 14		Total = 8	



**Merci  
Thanks**

شكرا جزيلًا



**SFPA-Morocco**



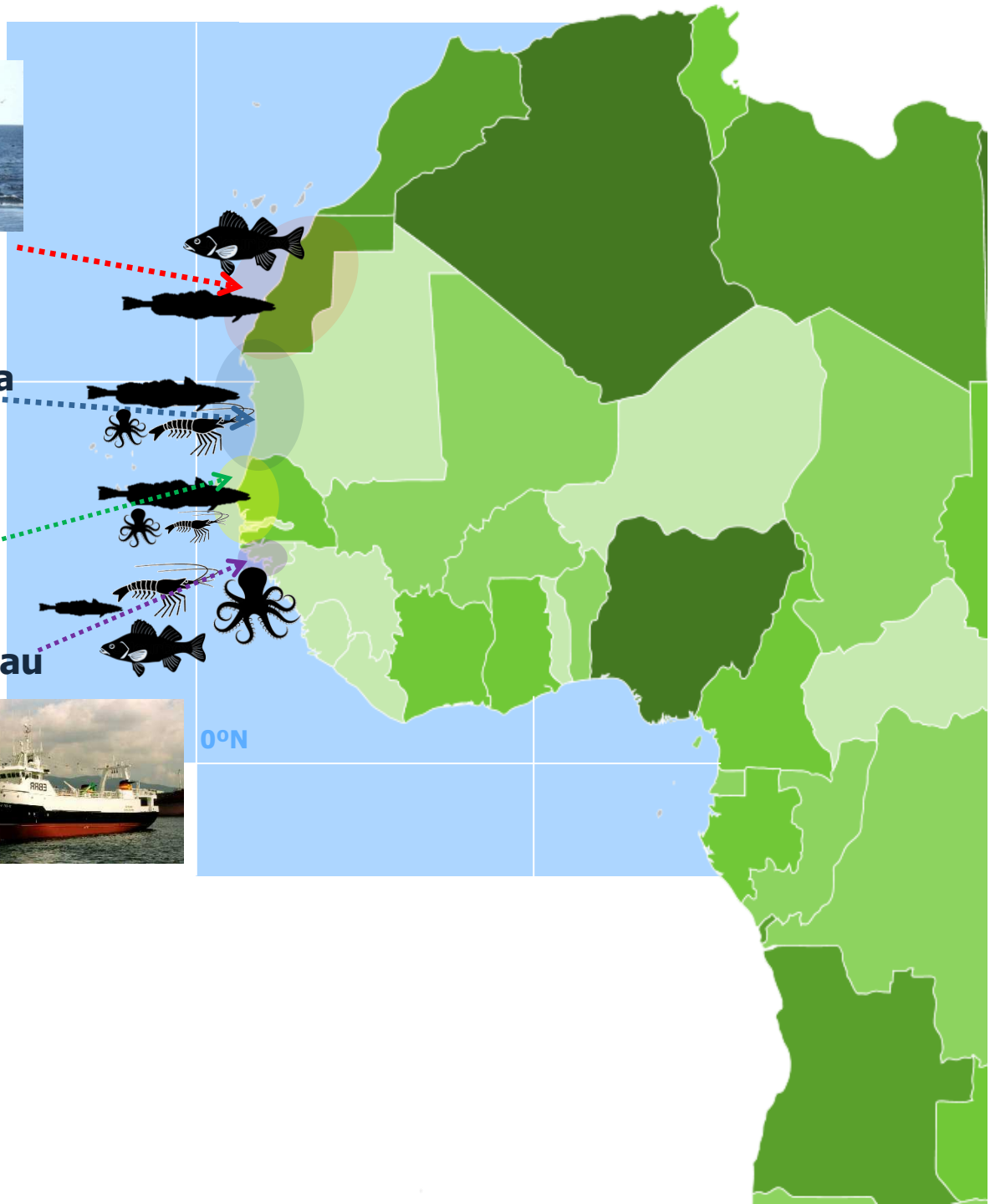
**SFPA-Mauritania**



**SFPA-Senegal &  
SFPA-Gambia**





**SFPA-Guinea-Bissau**







## FAO. 2019. WG Subgroup South September 2017

Stock	Catch (t) 2017 (aver. 2012-16)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	Stock status	Recomendations
<i>Dentex</i> spp. Angola, Congo, Gabon (no FSPA)	657 (615)	-	-	No fit	<ul style="list-style-type: none"> <li>•To reduce the effort.</li> <li>•Special attention in Angola (highest catches)</li> </ul>
<i>Dentex macrophthalmus</i> Angola (no FSPA)	11 146 (12 450)	-	-	No fit	<ul style="list-style-type: none"> <li>•Not increase the fishing effort</li> <li>•<b>Not to increase</b> the <b>catch</b> of the last year (6 400 t)</li> </ul>
<i>Merluccius polli</i> Angola	12 180 (11 749)	-	-	No fit	<ul style="list-style-type: none"> <li>•Data with too inconsistencies (fully exploited in 2011)</li> <li>•Not to increase the fishing effort. It should be well monitored</li> </ul>
<i>Parapenaeus longirostris</i> Congo (no FSPA)	501 (610)	52%	134%		<ul style="list-style-type: none"> <li>•To reduce in the catch level of 2016 less than 500 tonnes</li> <li>•Fishing mortality too high in 2016</li> </ul>
<i>Parapenaeus longirostris</i> Angola (no FSPA)	2 242 (1 655)	62%	255%		<ul style="list-style-type: none"> <li>•A reduction in the catch level below the TAC 2017 (1200 tonnes)</li> </ul>



# MÉTIER AND STOCKS TARGETED

## SHRIMPER TRAWLERS



*Penaeus notialis*



*Parapenaeus longirostris*



*Aristeus varidens*

## BLACK HAKE TRAWLERS



*Merluccius polli*



*Merluccius senegalensis*

## CEPHALOPOD-FINFISH TRAWLERS



*Octopus vulgaris*



*Sepia spp*  
(*S. hierredda*)



*Merluccius polli*



*Trachurus spp*  
(*T. trecae*)